EDMI Mk 10
Electricity Meter

Atlas Series Class 1 and Class 2
The Mk10A is a member of our Atlas series. A polyphase meter with CT connected or Whole Current measurement options, it includes power quality indication, advanced commissioning functionality and a large memory storage

User Guide to LCD Screen Displays

Version 1.4

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EDMI Mk 10
Electricity Meter

1.0 INTRODUCTION

The EDMI Mk10 meter is a new development of 'Smart' metering used to measure Electricity consumption. It is a unique product which enables energy usage to be continually measured and stored and then data is transmitted to the Supply Company when needed for billing. The meter has a large number of features, readily available, to provide Users with detailed information about their electricity supply including Tariff (Standard Settlement Configuration - SSC), Power Factor, Maximum Demand and Total Billing Consumption together with individual Rate consumption for consumers on multi rate tariffs.

In addition, there is an option to obtain analysed billing data information via a web link. Users can then see a detailed breakdown of their energy usage and time of use to enable any unplanned wastage to be eliminated and help manage more efficient usage, as part of an energy management process.

2.0 ACCESS TO DISPLAY SCREENS

Access to all the features of the meter only requires the pushing of a single 'display' button on the meter. The meter has two main displays called 'Set A' and 'Set B'. To move from 'Set A' to 'Set B' you simply press and hold the 'display' button for approximately 2 seconds.

Details of all the individual LCD screens within each 'Set' are shown on the following pages. To cycle within the 'Set' you simply press the display button and the display will advance one step.

Continual individual presses of the button will eventually cycle the display back to your starting point.

3.1 THE SCREEN WITH ALL SEGMENTS ILLUMINATED

1 INDICATES POWER FLOW
- +P = Import Kw
- - P = Export Kw
- +Q = Import kVar (Lag)
- - Q = Export kVar (Lead)

2 REGISTERS DISPLAYS
- Set A (Main)
- Set B (Test)

3 PHASES PRESENT ON METER

4 LOW BATTERY

5 LOCAL COMMS IN USE
(Flag Probe)

6 REMOTE COMMS IN USE
(eg Modem)

7 UNITS BEING MEASURED

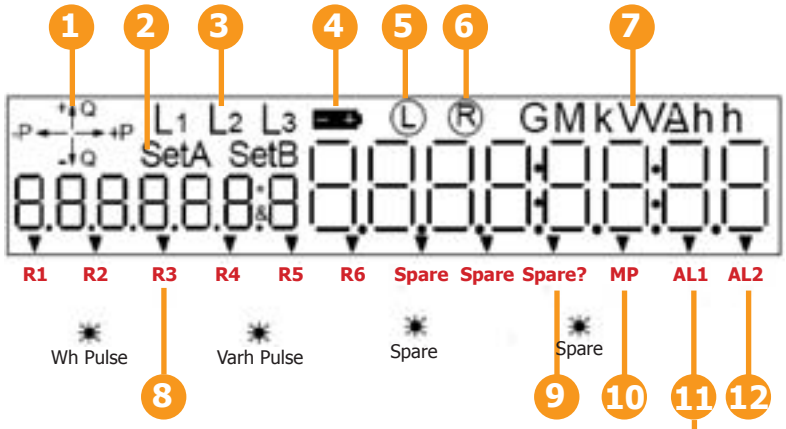
8 RATE REGISTERS IN USE

9 INCORRECT PHASE ROTATION

10 MODEM POWERED

11 ACTIVE ALARMS
(will clear as fault corrected eg Phase Fail)

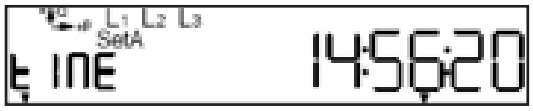
12 LATCHED ALARMS
(only cleared with fault manufacturer software)



FLAG LETTERS	ALARM NAME
E	ANALOG REFERENCE FAILURE
S	ASYMMETRIC POWER
V	VOLTAGE TOLERANCE ERROR
F	VT FAILURE
R	INCORRECT PHASE RESOLUTION
C	CLOCK FAILURE
M	REVERSE POWER
L	CALIBRATION DATA LOST
H	MODEM FAILURE
X	RAM FAILURE OR LCD FAILURE
Y	PROGRAM FLASH FAILURE
Z	DATA FLASH FAILURE
N	PULSING OUTPUT OVERFLOW
D	BATTERY FAILURE
U	TAMPER

3.2 SET A - METER READ INFORMATION

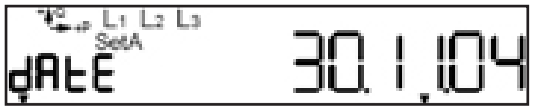
Current Time (GMT)



Please note that the display will remain where last used and NOT revert back to the Time if no buttons have been pressed the last 30 seconds

Register Identifiers
(for reading purposes)

Current Date
(30th November Shown)



kVarh Lag
(Sine Meter Reading)

KV

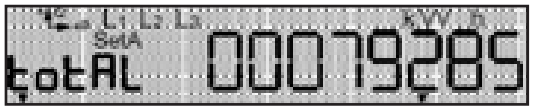
kVAh
(Apparent Energy Meter Reading)

KZ

This meter always displays in units
(- no K +10 for high CT ratios)

The Total kWh (Import) Register will only be displayed for the Single Rate Tariff, followed by the MDs then the Test Display

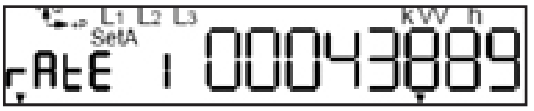
Total kWh (Import)



S

Rates 1,2 etc will only appear next in sequence if required by a multi rate tarrif

Rate 1 kWh
(followed by other rates)



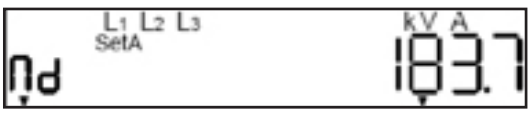
R1
R2

Followed by Rate 2

Maximum Demand in KW
(Highest Demand since last rest)

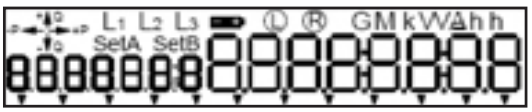
MD

Maximum Demand in KVA
(Highest Demand since last rest)



MZ

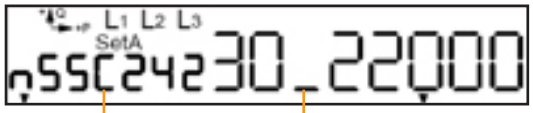
Test Display
(All segments illuminated)



3.2 SET A - TARIFF & MPAN INFORMATION

CT Ratio (Primary Current)
(eg 200/5 400/5 etc)

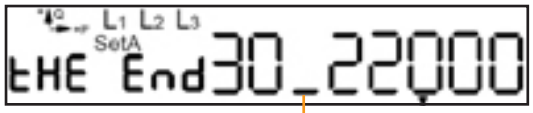
Tariff & MPAN Number
(eg SSC 242)



SSC Code

Indicates the start of the MPAN number which scrolls across the display

Final Display & MPAN



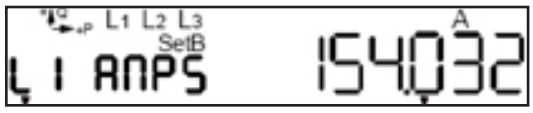
Indicates the start of the MPAN number which scrolls across the display

This is the last display before reverting to the first display : Current Time

3.3 SET B - SUPPLEMENTRY INFORMATION - Shown when "display" button is held for 2 seconds

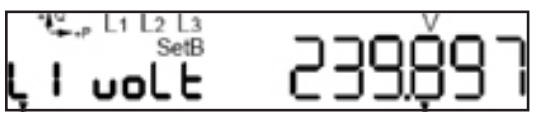
GSM Signal Strength

L1 Phase Current (RMS)
(Range will change to kA for high CT Ratios)



Followed by L2 & L3 Current

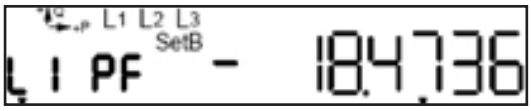
L1 Phase Voltage (RMS)



Followed by L2 & L3 Volts

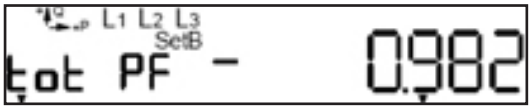
3.3 SET B - SUPPLEMENTRY INFORMATION

Phase Angle (degree's)
(for PF take Cos of the Angle)
(-ve for Lag +ve for Lead)

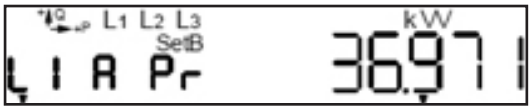


Followed by L2 & L3 Phase Angles

Overall Power Factor
(-ve for Lag +ve for Lead)



Active Power
(+P for Import -P for Export)
(Range will change to MW for high CT ratios)



Overall Active Power
(+P for Import -P for Export)
(Range will change to MW for high CT ratios)

Followed by L2 & L3 Active Powers

Reactive Power
(+Q for Import -P for Export)
(Range will change to MVar for high CT ratios)

Followed by L2 & L3 Reactive Powers

Overall Reactive Power
(+Q for Import -P for Export)
(Range will change to MVar for high CT ratios)

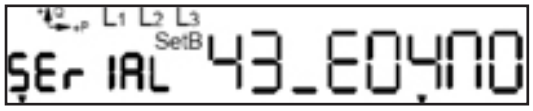
Apparent Power
(+P for Import -P for Export)
(Range will change to MVA for high CT ratios)

Followed by L2 & L3 Apparent Powers

3.3 SET B - SUPPLEMENTRY INFORMATION

Overall Apparent Power
(+P for Import -P for Export)
(Range will change to MVA for high CT ratios)

Meter Serial Number
(eg EO4M00$$£) note the M actually displayed as n)



Alarm Status Flags

Indicates the start of the Alarm Codes which scrolls across the display

FLAG LETTERS	ALARM NAME
E	ANALOG REFERENCE FAILURE
S	ASYMMETRIC POWER
V	VOLTAGE TOLERANCE ERROR
F	VT FAILURE
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Z	DATA FLASH FAILURE
N	PULSING OUTPUT OVERFLOW
D	BATTERY FAILURE
U	TAMPER

A test display will appear as the last display before reverting back to GSM signal strength

Always remember to hold display button for another 2 seconds to revert back to "Set A"